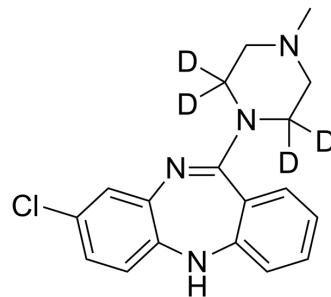


## Clozapine-d<sub>4</sub>

<b>Cat. No.:</b>	HY-14539S2		
<b>CAS No.:</b>	204395-52-8		
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>15</sub> D <sub>4</sub> ClN <sub>4</sub>		
<b>Molecular Weight:</b>	330.85		
<b>Target:</b>	Dopamine Receptor; mAChR; Adrenergic Receptor; 5-HT Receptor; Isotope-Labeled Compounds		
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling; Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

<b>Description</b>	Clozapine-d <sub>4</sub> is the deuterium labeled Clozapine. Clozapine is an antipsychotic used for the research of schizophrenia. Clozapine has high affinity for a number of neuroreceptors[1][2][3][4][5].
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Moreno JL, et al. Persistent effects of chronic clozapine on the cellular and behavioral responses to LSD in mice. *Psychopharmacology (Berl).* 2013 Jan;225(1):217-26.
- [3]. Seeman P, et al. Clozapine, a fast-off-D2 antipsychotic. *ACS Chem Neurosci.* 2014 Jan 15;5(1):24-9.
- [4]. Zhukovskaya NL, et al. Clozapine downregulates 5-hydroxytryptamine6 (5-HT6) and upregulates 5-HT7 receptors in HeLa cells. *Neurosci Lett.* 2000 Jul 21;288(3):236-40.
- [5]. Zorn SH, et al. Clozapine is a potent and selective muscarinic M4 receptor agonist. *Eur J Pharmacol.* 1994 Nov 15;269(3):R1-2.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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